

553, 904

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number  
**WO 2004/094468 A2**

(51) International Patent Classification<sup>7</sup>: **C07K 14/315**

Strasse 50, 65929 Frankfurt (DE). **FLODGAARD, Hans**  
[DK/DK]; Melvillevej 6, DK-2900 Hellerup (DK).

(21) International Application Number:

PCT/EP2004/004429

(74) Agents: **ROQUES, Sarah, Elizabeth et al.**; J.A. Kemp &  
Co., 14 South Square, Gray's Inn, London WC1R 5JJ (GB).

(22) International Filing Date: 23 April 2004 (23.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0309246.7 23 April 2003 (23.04.2003) GB

0329112.7 16 December 2003 (16.12.2003) GB

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(71) Applicant (for all designated States except US): **HANSA  
MEDICAL RESEARCH AB** [SE/SE]; Edison Park,  
S-223 69 Lund (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BJÖRCK, Lars**  
[SE/SE]; Magle Stora Kyrkogata 10, S-223 50 Lund (SE).  
**HERWALD, Heiko** [DE/SE]; Kyrkogatan 8, S-24014  
Veberöd (SE). **MÖRGELIN, Matthias** [SE/SE]; Tre Hö-  
gars Väg 26B, S-224 75 Lund (SE). **RUSSELL, Wayne**  
[GB/SE]; Hallandsgatan 7, S-224 32 Kävlinge (SE).  
**NORRBY-TEGLUND, Anna** [SE/SE]; Gustavslundsvä-  
gen 19, S-144 63 Rönninge (SE). **LINDBOM, Lennart**  
[SE/SE]; Department of Physiology and Pharmacology,  
Karolinska Institutet, S-171 77 Stockholm (SE). **SOL-  
LENBERG, Ulla** [SE/SE]; Department of Physiology and  
Pharmacology, Karolinska Institutet, S-171 77 Stockholm  
(SE). **CRAMER, Henning** [DE/DE]; Ludwigshafener

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-  
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,  
GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG).

## Published:

— without international search report and to be republished  
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND TREATMENT

(57) Abstract: A method for identifying an anti-streptococcal agent, comprises: (a) providing, as a first component, an isolated streptococcal M protein or a functional variant thereof; (b) providing, as a second component, isolated fibrinogen or a functional variant thereof; (c) providing, as a third component, an isolated  $\beta_2$  integrin or a functional variant thereof; (d) contacting said components with a test substance under conditions that would permit the components to interact in the absence of the test substance; and (e) determining whether the test substance inhibits the interaction between the components; thereby to determine whether a test substance is an anti-streptococcal agent.



WO 2004/094468 A2